# National Center for Science and Engineering Statistics | NSF 18-313

TABLE 60
Importance of copyright, trade secret, and mask work intellectual property protections to companies located in the United States that performed or funded R&D, by industry and company size: 2015 (Percent)

		Copyrights			Trade secrets			Mask works		
		Very	Somewhat	Not	Very	Somewhat	Not	Very	Somewhat	Not
Industry and company size	NAICS code	important	important	important	important	important	important	important	important	important
All industries	21-23, 31-33, 42-81	28.1	34.7	37.2	58.9	25.7	15.4	5.3	10.0	
Manufacturing industries	31–33	28.3	34.5	37.2	63.1	26.0	10.9	6.6	11.1	82.4
Food	311	37.2	30.0	32.8	76.1	12.7	11.1	D	D	95.3
Beverages and tobacco products	312	64.5	26.5	9.0	66.6	D	D	0.0	D	D
Textiles, apparel, and leather products	313-16	25.9	44.8	29.3	46.1	36.3	17.6	D	D	D
Wood products	321	31.3	37.5	31.3	56.3	25.0	18.8	0.0	0.0	100.0
Paper	322	27.6	34.5	37.9	62.1	24.1	13.8	0.0	D	D
Printing and related support activities	323	42.6	26.8	30.6	61.8	19.1	19.1	D	D	84.7
Petroleum and coal products	324	D	D	30.8	73.6	D	D	0.0	0.0	100.0
Chemicals	325	22.1	39.4	38.4	73.8	17.9	8.3	3.2	8.8	88.0
Basic chemicals	3251	19.4	39.7	40.9	85.7	9.3	5.0	5.8	8.7	85.5
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	23.8	40.9	35.3	78.6	D	D	D	D	85.3
Pesticides, fertilizers, and other agricultural chemicals	3253	20.1	D	D	89.8	10.2	0.0	0.0	0.0	100.0
Pharmaceuticals and medicines	3254	21.8	37.8	40.4	69.5	20.6	9.9	2.8	9.9	87.3
Soaps, cleaning compounds, and toilet preparations	3256	33.9	32.5	33.6	61.0	25.8	13.3	0.0	6.6	93.4
Paints, coatings, adhesives, and other chemicals	3255, 3259	18.3	42.3	39.4	84.5	11.3	4.2	4.2	5.6	90.3
Plastics and rubber products	326	18.3	31.0	50.7	59.4	23.1	17.5	D	D	94.1
Nonmetallic mineral products	327	21.5	30.8	47.7	67.7	22.0	10.3	6.6	D	D
Primary metals	331	33.1	30.6	36.3	66.2	16.9	16.9	7.5	7.5	85.0
Fabricated metal products	332	17.1	29.5	53.4	51.6	24.0	24.4	4.5	8.4	87.1
Machinery	333	34.9	33.7	31.4	59.1	29.3	11.6	2.1	16.5	81.4
Agricultural implements	33311	38.0	32.8	29.2	43.8	35.8	20.4	D	D	82.0
Semiconductor machinery	333242	18.9	37.9	43.2	53.0	D	D	D	D	62.1
Engines, turbines, and power transmission equipment	3336	21.0	43.0	36.1	65.0	21.1	13.9	0.0	0.0	100.0
Other machinery	other 333	36.4	32.9	30.6	60.0	28.6	11.4	1.8	16.8	81.3
Computer and electronic products	334	38.4	37.6	24.0	72.6	18.8	8.6	20.1	20.3	59.5
Communications equipment	3342	34.6	48.6	16.8	75.1	14.1	10.8	15.4	13.4	71.2
Semiconductors and other electronic components	3344	38.6	40.6	20.8	77.2	16.9	5.9	43.3	27.5	29.2
Navigational, measuring, electromedical, and control instruments	3345	33.1	36.6	30.3	67.7	24.2	8.1	8.8	21.2	70.0
Electromedical, electrotherapeutic, and irradiation apparatuses	334510, 334517	23.1	47.7	29.2	75.1	24.9	0.0	D	D	64.2
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	46.0	22.1	31.9	74.0	10.0	16.0	22.6	16.2	61.2
Other measuring and controlling devices	other 3345	34.5	35.1	30.4	62.7	27.4	9.9	7.7	17.4	74.9
Other computer and electronic products	other 334	56.6	22.7	20.7	74.5	12.8	12.7	11.9	11.8	76.3
Electrical equipment, appliances, and components	335	32.1	40.8	27.1	58.2	30.9	10.9	5.9	18.8	75.3
Transportation equipment	336	21.2	32.6	46.2	65.9	18.3	15.7	3.3	4.3	92.4

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Industry and company size	NAICS code	important	important	important	important	important	important	important	important	important
Automobiles, bodies, trailers, and parts	3361-63	18.5	40.5	40.9	59.8	24.9	15.3	4.3	4.5	
Aerospace products and parts	3364	23.3	23.2	53.5	79.6	7.4	13.0	2.0	2.0	96.0
Aircraft, aircraft engines, and aircraft parts	336411-13	24.5	22.5	53.1	80.6	7.1	12.2	2.2	2.2	95.6
Guided missiles, space vehicles, and related parts	336414-15, 336419	D	D	57.5	69.1	D	D	0.0	0.0	100.0
Military armored vehicles, tanks, and tank components	336992	D	D	52.2	D	D	D	0.0	D	D
Other transportation	other 336	29.9	18.9	51.2	57.0	18.5	24.6	D	D	86.9
Furniture and related products	337	42.3	34.6	23.1	46.2	34.6	19.2	11.5	0.0	88.5
Miscellaneous manufacturing	339	21.8	27.7	50.5	43.8	51.7	4.5	6.7	6.3	87.0
Medical equipment and supplies	3391	19.4	24.3	56.4	39.4	57.2	3.3	7.0	6.1	86.9
Other miscellaneous manufacturing	3399	33.9	45.0	21.1	65.7	23.9	10.5	5.1	7.2	87.7
Nonmanufacturing industries	21-23, 42-81	27.9	34.9	37.2	53.3	25.4	21.2	3.6	8.7	87.6
Mining, extraction, and support activities	21	40.9	30.6	28.5	72.0	17.2	10.8	0.0	12.0	88.0
Utilities	22	17.7	55.7	26.6	36.0	36.6	27.4	D	D	76.4
Wholesale trade	42	22.8	39.0	38.2	51.9	24.0	24.0	0.0	8.1	91.9
Electronic shopping and electronic auctions	454111-12	D	D	D	D	S	D	S	S	S
Transportation and warehousing	48-49	D	D	42.0	46.4	D	D	0.0	0.0	100.0
Information	51	48.9	32.4	18.8	48.4	33.6	18.0	2.6	6.7	90.7
Publishing	511	57.8	27.6	14.5	51.4	40.4	8.2	1.2	4.3	94.5
Newspaper, periodical, book, and directory publishers	5111	100.0	0.0	0.0	D	0.0	D	0.0	0.0	100.0
Software publishers	5112	57.5	27.8	14.7	51.7	40.7	7.6	1.2	4.3	94.4
Telecommunications	517	S	S	S	S	S	S	D	D	S
Data processing, hosting, and related services	518	49.6	28.3	22.1	52.0	32.1	15.9	3.7	8.6	87.7
Other information	other 51	42.1	26.2	31.7	42.1	21.0	36.9	5.2	9.8	85.0
Finance and insurance	52	22.8	34.9	42.3	60.7	23.3	16.0	D	D	D
Real estate and rental and leasing	53	51.9	D	D	D	D	D	D	0.0	D
Lessors of nonfinancial intangible assets (except copyrighted works)	533	D	D	D	100.0	0.0	0.0	0.0	0.0	100.0
Other real estate and rental and leasing	other 53	58.0	D	D	D	D	D	D	0.0	D
Professional, scientific, and technical services	54	18.4	36.6	45.0	55.9	22.1	22.0	4.3	9.8	85.9
Architectural, engineering, and related services	5413	20.2	18.3	61.4	36.8	16.2	47.0	3.8	5.7	90.5
Computer systems design and related services	5415	28.9	36.9	34.2	61.1	17.4	21.5	8.3	4.6	87.1
Scientific research and development services	5417	12.8	44.3	42.9	59.8	20.1	20.1	3.4	12.6	84.1
Biotechnology research and development	541711	15.5	25.8	58.7	57.0	11.5	31.5	2.6	4.7	92.6
Physical, engineering, and life sciences (except biotechnology) research and development	541712	11.1	52.8	36.1	61.5	24.0	14.5	3.8	16.2	80.0
Social sciences and humanities research and development	541720	38.1	D	D	32.5	28.8	38.7	0.0	D	D
Other professional, scientific, and technical services	other 54	19.1	21.7	59.2	47.5	42.5	9.9	1.3	12.0	86.7

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Industry and company size	NAICS code	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important
Health care services	621-23	18.5	25.6	55.9	54.0	15.8	30.2	D	D	86.8
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	29.2	22.5	48.4	41.5	23.5	35.0	3.4	7.7	88.8
All companies (number of domestic employees)	_	28.1	34.7	37.2	58.9	25.7	15.4	5.3	10.0	84.6
Micro companies <sup>a</sup>										
5–9	_	13.9	30.1	56.0	71.6	10.9	17.5	5.0	12.2	82.8
Small companies										
10-19	_	19.9	40.1	40.1	62.1	19.6	18.2	4.7	13.4	82.0
20-49	_	34.7	31.0	34.3	63.8	22.2	14.0	5.9	7.1	87.0
Medium companies										
50-99	_	23.7	29.3	46.9	43.8	42.7	13.6	6.6	6.6	86.8
100-249	_	26.4	32.0	41.6	56.8	24.1	19.1	5.0	9.1	86.0
Large companies										
250-499	_	25.1	40.7	34.1	53.8	27.7	18.5	3.4	18.0	78.6
500-999	_	37.4	33.3	29.3	62.1	23.6	14.3	6.4	10.4	83.2
1,000-4,999	_	33.6	41.8	24.6	69.0	20.0	11.1	4.4	9.0	86.6
5,000-9,999	_	34.8	48.7	16.5	66.2	26.0	7.8	7.5	11.1	81.4
10,000-24,999	_	43.6	43.5	12.9	82.0	12.3	5.7	3.8	8.0	88.2
25,000 or more	_	53.4	32.6	14.0	80.9	7.4	11.7	7.6	7.4	84.9

D = data withheld to avoid disclosing operations of individual companies; S = data withheld as more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

### Note(s)

Statistics are representative of companies in the United States that were eligible to receive Form BRDI-1 and performed or funded R&D. These statistics are not comparable to estimates prior to 2012 as those estimates are representative of all companies in the United States. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned.

#### Source(s

National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2015.

<sup>&</sup>lt;sup>a</sup> Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.